

in that part of the sky. We must probably therefore wait for next winter for a complete confirmation of the discovery of this interesting object. As the period determined by Auwers for *Procyon* in the paper above referred to, amounts to forty years, it is not likely that when observations can be resumed, the companion will be again so near the principal star as to be lost in its rays.

New Nebulæ discovered at the Observatory of Marseilles.

By M. E Stéphan.

M. Stéphan announces his having detected about 300 new nebulæ, but that the positions of 75 only have been accurately determined by comparision with catalogued stars. The following list of fifteen is in continuation of previous ones. The positions of the remainder will follow as they are ascertained.

Positions moyennes pour 1872.0.

Star de Comp.	R. A.			P.			
	^h	^m	^s	^o	[']	["]	
a	17	8	43.47	49	35	12.7	e. e. F.—13 précède de 0 ^s .4 (à peine observable.
b	19	13	1.20	44	13	29.5	e. e. F.—(à peine observable.)
c	20	29	39.26	95	3	43.6	e. e. F.—m. E.—Vap.—i. R.—Leg. cond. au C.
d	21	15	39.42	51	22	12.1	e. P.—e. F.—R.—ext. petite, se projette sur la néb. près du centre.
e	21	35	8.32	94	17	28.6	e. e. P.—e. e. F.—R.—Cond. au C.
f	21	38	13.63	94	11	26.4	e. P.—e. F.—R.—Cond. au C. mais pas de P. B.
g	21	56	51.38	79	24	33.9	t. P.—t. F.—R.—g. B. M.
h	22	6	1.66	51	54	33.7	e. P.—e. F.—R.—Leg. Cond. au C.
h	22	6	18.68	51	55	57.3	e. P.—e. F.—R.—Leg. Cond. au C. (un peu moins faible que la précédente.)
i	22	9	58.40	71	24	17.1	t. F.—I.—E du S au N (1' sur 0.3) —* 10 en contact au S.
k	22	10	15.95	74	9	57.9	e. e. P.—e. e. F.—R.—Cond. au C.
l	22	22	32.07	60	21	41.8	P.—e. e. F.—Ov.—Leg. Cond. au C. —p. * projetée près du bord.
m	22	29	41.06	55	51	16.1	e. e. P.—e. F.—R.—Cond. au C.
n	22	32	24.05	55	9	55.7	e. P.—e. F. (à peine observable)— Vap.—Leg. Cond. au C.
n	22	32	55.30	55	7	27.2	e. e. P.—e. e. F.—I.—all.—Cond. excentrique.

Abbreviations.

- e. P. excessivement petite.
- e. e. P. excessivement, excessivement petite.
- e. F. excessivement faible.
- e. e. F. excessivement, excessivement faible.
- E. étendue.
- m. E. modèrément étendue.
- t. P. très petite.
- t. F. très faible.
- R. Ronde.
- i. R. Irrégulièrement ronde.
- I. Irrégulière.
- g. B. M. Graduellement brillante des bords au centre.
- Vap. Aspect vaporeux.
- P. B. point brillant.
- Cond. au C. Condensation au centre.
- Ov. Ovoïde.
- All. Allongée.

Etoiles de Comparaison. Positions moyennes adoptées pour 1872.0.

		R.A.			P.		
		h	m	s	°	'	"
<i>a</i>	93 W. H. xvii. (8.9) N. C.	17	4	34.74	49	40	9.4
<i>b</i>	2852 Arg. Z. + 45° (9.4)	19	8	35.00	44	11	25.8
<i>c</i>	697 W. H. xx. (9) A. C.	20	28	22.59	95	1	56.1
<i>d</i>	311 W. H. xxi. (9) N. C.	21	13	54.35	51	22	34.2
<i>e</i>	778 W. H. xxi. (9) A. C.	21	33	36.40	97	23	31.5
<i>f</i>	730 W. H. xxi. (8) A. C.	21	31	58.74	94	9	29.6
<i>g</i>	4677 Arg. Z. + 10° (9.0)	21	55	48.20	79	28	8.3
<i>h</i>	4697 Arg. Z. + 38° (9.3)	22	4	46.80	51	53	7.5
<i>i</i>	43557 Lalande (8)	22	12	54.35	71	21	9.4
<i>k</i>	218 W. H. xxii. (7.8) A. C.	22	11	53.49	74	14	57.0
<i>l</i>	354 W. H. xxii. (8) N. C.	22	16	41.26	60	17	16.6
<i>m</i>	4721 Arg. Z. + 34° (9.5)	22	29	3.90	55	48	28.0
<i>n</i>	791 W. H. xxii. (9) N. C.	22	34	27.21	55	6	31.1

A Self-recording Transit Micrometer.

By the Rev. S. J. Perry.

At the November meeting of the Society in 1871, a paper was read by Professor A. Herschel on a self-recording transit micrometer. The principle was ingenious and simple, but the difficulties in practice appeared great on account of the arrangement of the springs. The nice adjustment of strength, that must